



# ABSTRACT OF THE DISCLOSURE

5        A membrane process and apparatus are described for  
the production of a desired very high purity permeate  
gas by ~~means~~<sup>use</sup> of a multiple stage membrane process  
wherein in a primary stage a process feed gas mixture is  
provided to a primary membrane separator unit comprising  
a membrane having a relatively high intrinsic  
10 permeability to provide an intermediate permeate gas and  
a retentate gas, and providing the intermediate permeate  
gas in a secondary stage to a secondary membrane  
separator unit comprising a membrane having a relatively  
low<sup>low</sup> intrinsic permeability, to produce therefrom a very  
15 high purity permeate gas product.